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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/633,837 08/07/00 SMART

D 06457-017002

EXAMINER

MMC2/0118

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JACKSON, C  
ART UNIT

PAPER NUMBER

2881  
DATE MAILED:

01/18/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/633,837

Applicant(s)

SMART, DONALD V.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) 1-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's Pre-Amendment filed on 7 August 2000.
2. This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This is a divisional of Application No. 09/096,600, filed 12 June 1998." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.

### ***Claim Objections***

3. Claims 41 and 56 are objected to because of the following informalities: In both claims "the pre-selected pulse width" should be changed to " the pre-selected pulse shape". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 45-49 and 60-64 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 45-49 and 60-64 recite the limitation " the electronic device" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 40, 42-44, 50-55, 57-59, and 65-69 (Also, claims 41, 45-49, 56, and 60-64, to the extent understood) are rejected under 35 U.S.C. 103(a) to the extent understood as being unpatentable over Emmons, Jr. et al. (5,197,074). Emmons, Jr. et al. teaches a pulsed laser system **10**, with a laser source **22**, and pulsing the pulsed laser system at a pre-selected repetition rate (pulse shape) selected independently of the pre-selected pulse shape (repetition rate) which remains preset regardless of the repetition rate (pulse shape), **column 4, lines 63-68 and column 5, lines 1-15**. As for the limitation of pre-selecting the pulse shape and/or repetition rate, it would have been obvious to one of ordinary skill in the art at the time the invention was made to pre-select the output of the pulse shape and/or repetition rate of the pulsed laser system based on the known properties of the target material to be processed to ensure the material processed correctly, e.g., to ensure the material is not over/under processed. Also, the limitation of causing the laser source to process the target material on the workpiece, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed

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apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

In regard to claims 41-43 and 56-58, Emmons, Jr. et al. teaches pre-selecting the pulse width, pulse energy, and peak power, **claim 1**.

In regard to claims 44-49 and 59-64, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

In regard to claims 50-51 and 65-66, Emmons, Jr. et al. teaches computer-controlled system, **column 6, lines 4-17 and column 7, lines 32-42**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the computer solve the complicated mathematical equations involved in finding the correct processing values to pre-select the output of the pulse shape and/or repetition rate of the pulsed laser system based on the known properties of the target material to be processed.


In regard to claims 52-53 and 67-68, Emmons, Jr. et al. teaches a laser rod **1**, a laser pump **22**, a reflector **16** interposed between the pump and the rod, an output reflector **18**, and a switch **12** interposed between the laser rod and the output reflector, when closed, causes energy to be stored in the laser rod for a fixed desired time of the time it takes for an acoustic wave of sufficient power to prevent feedback to propagate through the acousto-optic medium. When open, allows energy to be emitted from the laser rod during an emission period, **column 4, lines 63-68 and column 5, lines 1-15**.

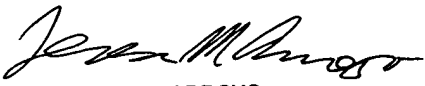
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703)306-5981. The examiner can normally be reached on 8:30 - 4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa M. Arroyo can be reached on (703)308-4782. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

chj   
January 16, 2001

  
TERESA M. ARROYO  
SUPERVISORY PATENT EXAMINER  
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